

Certification Exhibit

**FCC ID: 2ABLX-150560Z
IC: 8832A-150560Z**

**FCC Rule Part: 15.247
IC Radio Standards Specification: RSS-247**

ACS Project Number: 15-0413

**Manufacturer: Qmotion Incorporated
Model: QM150560Z**

Manual

FCC

Warning: Changes or modifications to this device not expressly approved by QMotion® Incorporated -Advanced Shading Systems could void the user’s authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1)This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

RF Exposure

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

INDUSTRY CANADA

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

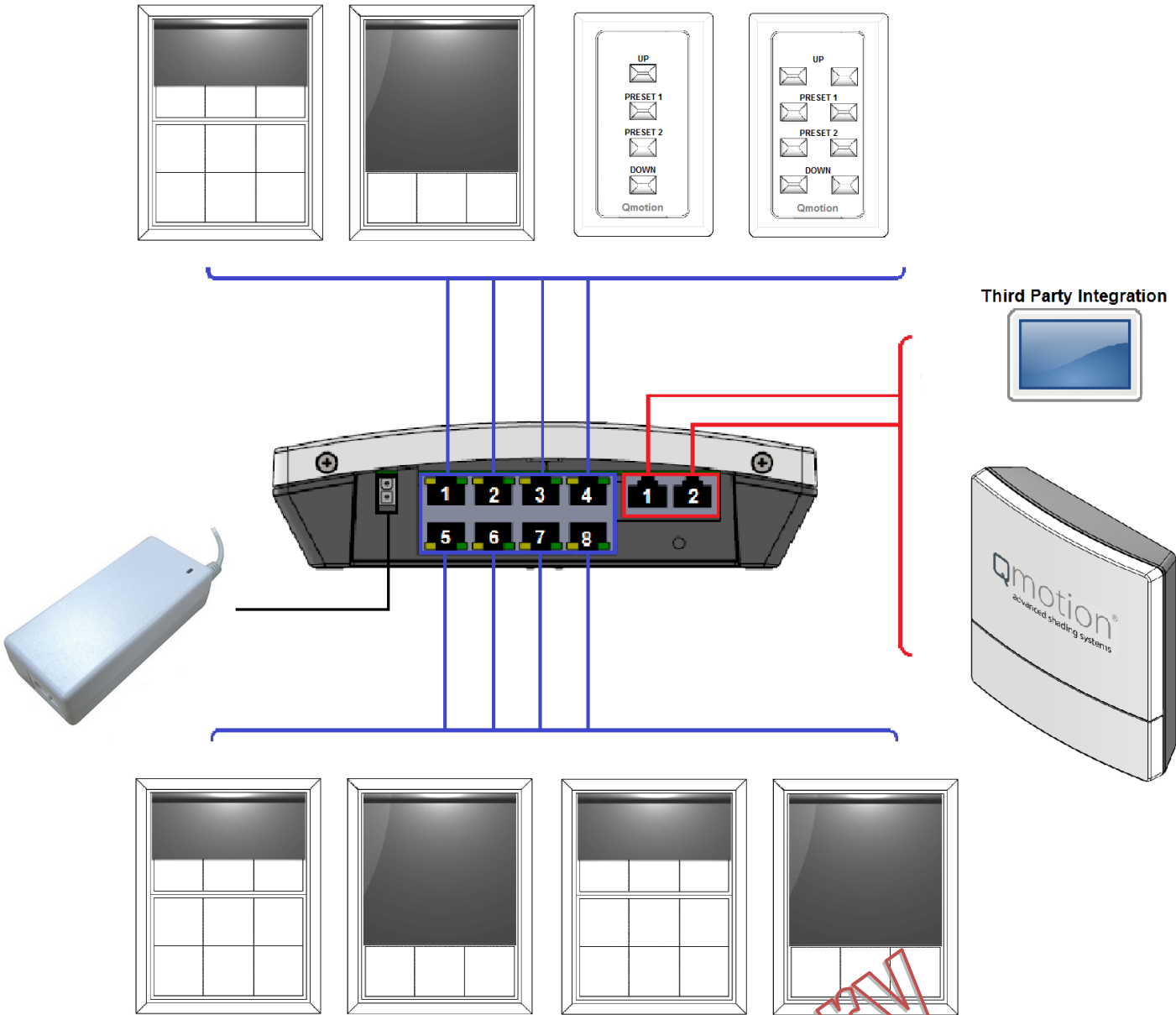
RF Exposure

Cet équipement est conforme aux limites d'exposition aux radiations dans un environnement noncontrôlé. Cet équipement doit être installé et utilisé à distance minimum de 20cm entre le radiateur et votre corps. Cet émetteur ne doit pas être co-localisées ou opérant en conjonction avec tout autre antenne ou transmetteur.



QMotion ZigBee Hard Wired Control
Roller Shade Application Guide

ZigBee Hardwired Roller Shade System Overview

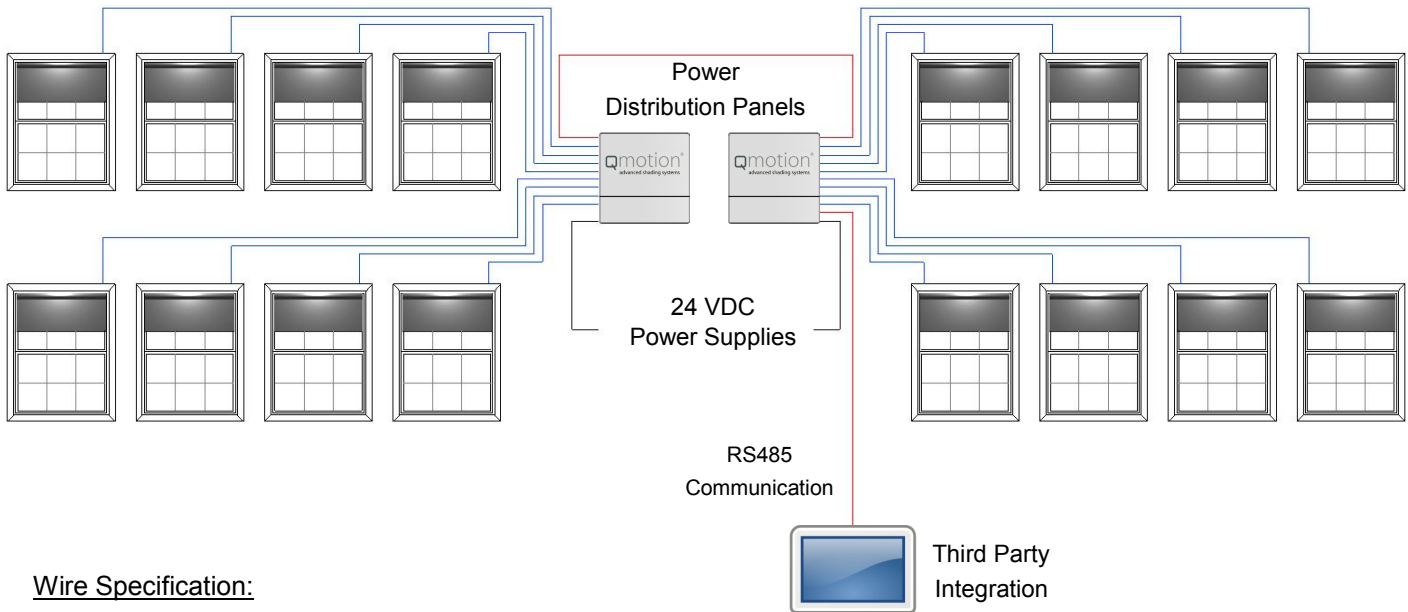


- Power Supply: 24 VDC, 7.5A
- RJ-45 Ports for Motorized Shades and Switches - Quantity 8
- Communication Ports (RJ-45) - Quantity 2



Part #

ZigBee Hardwired Roller Shade Third Party Integration



Wire Specification:

- Category 5e/Category 6 for use with RJ-45 Connector
- 24 AWG
- Maximum length of wire from Power Distribution Panel to device :
 - 8' X 8' Shade with 40:1 motor - 1250'
 - 12' X 12' Shade with 73:1 motor - 750'
 - 12' X 20' Shade with 73:1 motor - 500'
 - Hardwired 4 and 8 Button Switches - 1000'
- *Length based on 115K baud rate
- Maximum wire length for RS485 communication - 2000'

System Capacity:

- 200 Devices (QMotion Shades, QMotion Wireless Remotes, QMotion Hardwired Switches and other ZigBee devices)

Power Distribution Panel:

- 8 RJ-45 ports for motorized shades and switches
- 2 additional RJ-45 communication ports dedicated to daisy chain with other Power Distribution Panels and Third Party Integration via RS485.
- Power Supply
 - AC Input: 100-240 VAC, 2.5A
 - DC Output: 24 VDC, 7.5A

Note:

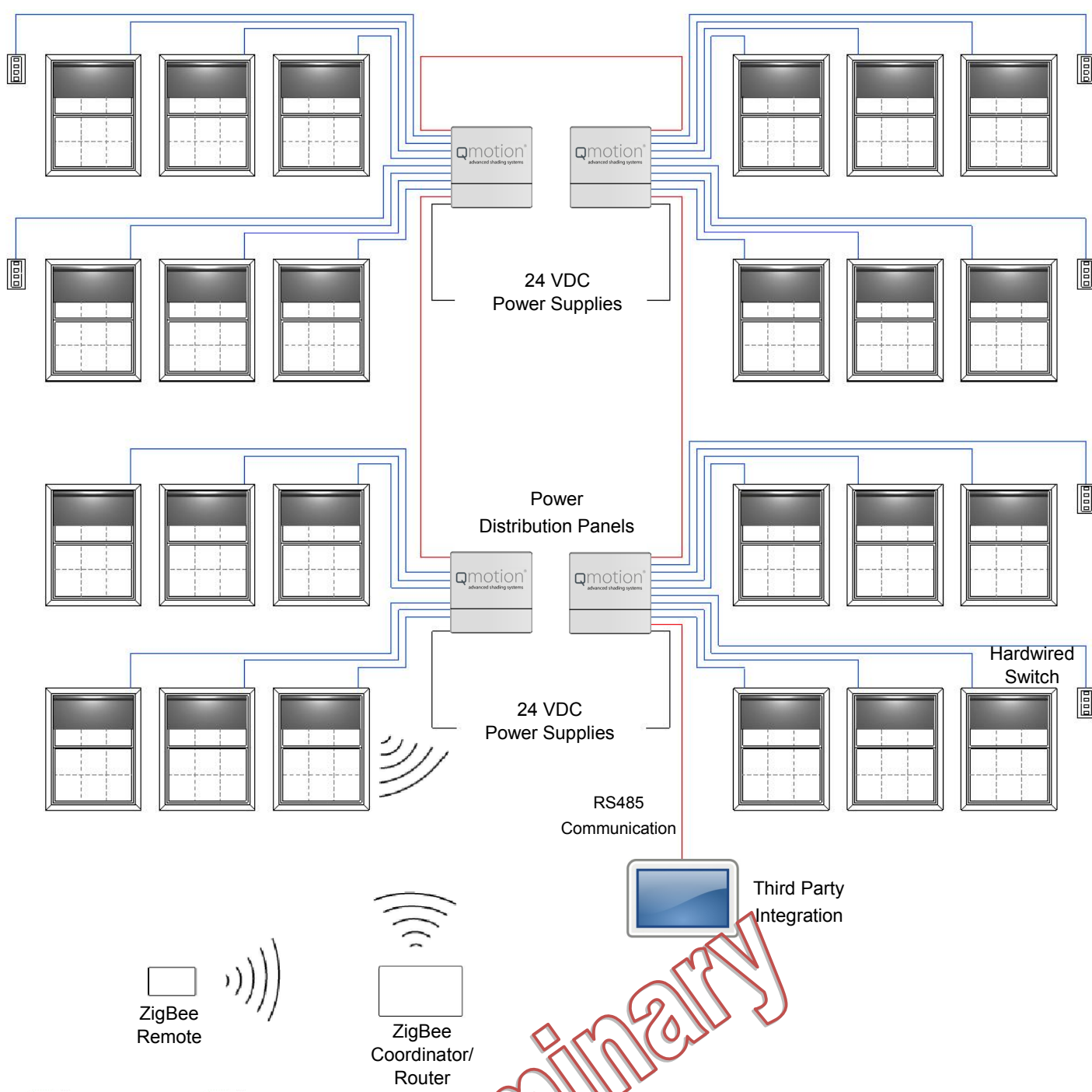
- Standard Roll Applications (Motor Left) - Wire will need to be run to the LEFT side of the window (as shown).
- Reverse Roll Applications (Motor Right) - Wire will need to be run to the RIGHT side of the window .

*Specifications are subject to change without notice



Part #

ZigBee Hardwired Roller Shade Third Party Integration

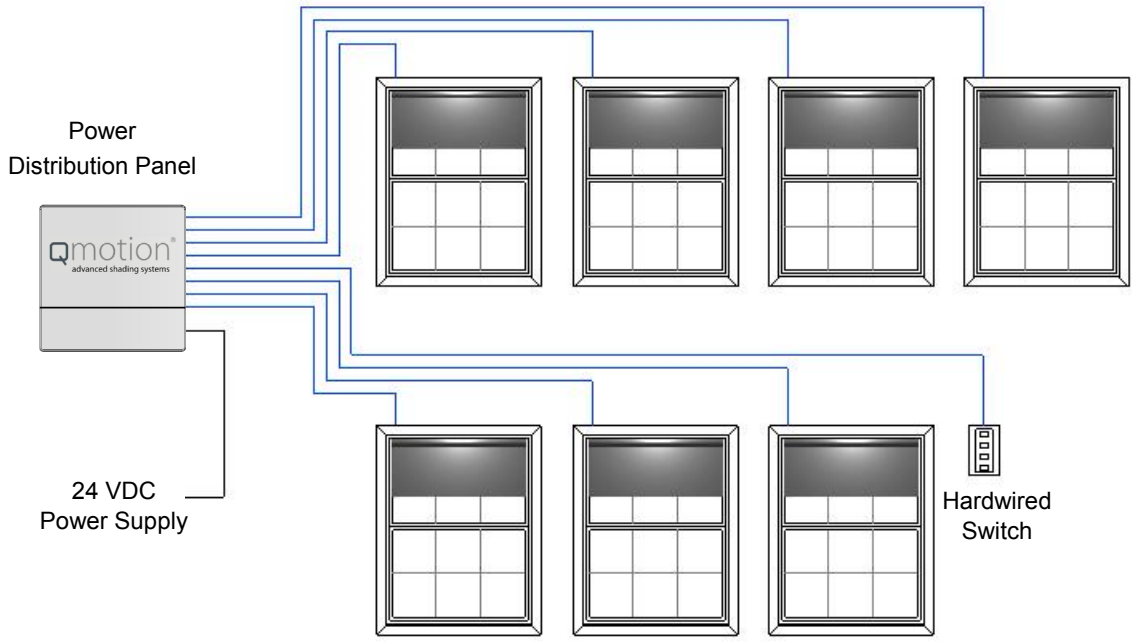


Caution

NOTE: The QMotion ZigBee Hardwired System does not operate on “standard” Power over Ethernet (PoE) schemes. Do not attempt to connect the QMotion ZigBee Hardwired System to any Ethernet device. Doing so may damage the system components and/or the external Ethernet or PoE device.



ZigBee Hardwired Roller Shade Single Hardwired Switch Application



Wire Specification:

- Category 5e/Category 6 for use with RJ-45 Connector
- 24 AWG
- Maximum length of wire from Power Distribution Panel to device:
 - 8' X 8' Shade with 40:1 motor - 1250'
 - 12' X 12' Shade with 73:1 motor - 750'
 - 12' X 20' Shade with 73:1 motor - 500'
 - Hardwired 4 and 8 Button Switches - 1000'
- *Length based on 115K baud rate
- Maximum wire length for RS485 communication - 2000'

System Capacity:

- 200 Devices (QMotion Shades, QMotion Hardwired Switches)

Power Distribution Panel:

- 8 RJ-45 ports for motorized shades and switches
- 2 additional RJ-45 communication ports dedicated to daisy chain with other Power Distribution Panels and Third Party Integration via RS485.
- Power Supply
 - AC Input: 100-240 VAC, 2.5A
 - DC Output: 24 VDC, 7.5A

Note:

- Standard Roll Applications (Motor Left) - Wire will need to be run to the LEFT side of the window (as shown).
- Reverse Roll Applications (Motor Right) - Wire will need to be run to the RIGHT side of the window .

*Specifications are subject to change without notice



ZigBee Hardwired Roller Shade Multiple Power Distribution Panel Application

Wire Specification:

- Category 5e/Category 6 for use with RJ-45 Connector
- 24 AWG
- Maximum length of wire from Power Distribution Panel to device:
 - 8' X 8' Shade with 40:1 motor - 1250'
 - 12' X 12' Shade with 73:1 motor - 750'
 - 12' X 20' Shade with 73:1 motor - 500'
 - Hardwired 4 and 8 Button Switches - 1000'
- *Length based on 115K baud rate
- Maximum wire length for RS485 communication - 2000'

System Capacity:

- 200 Devices (QMotion Shades, QMotion Hardwired Switches)

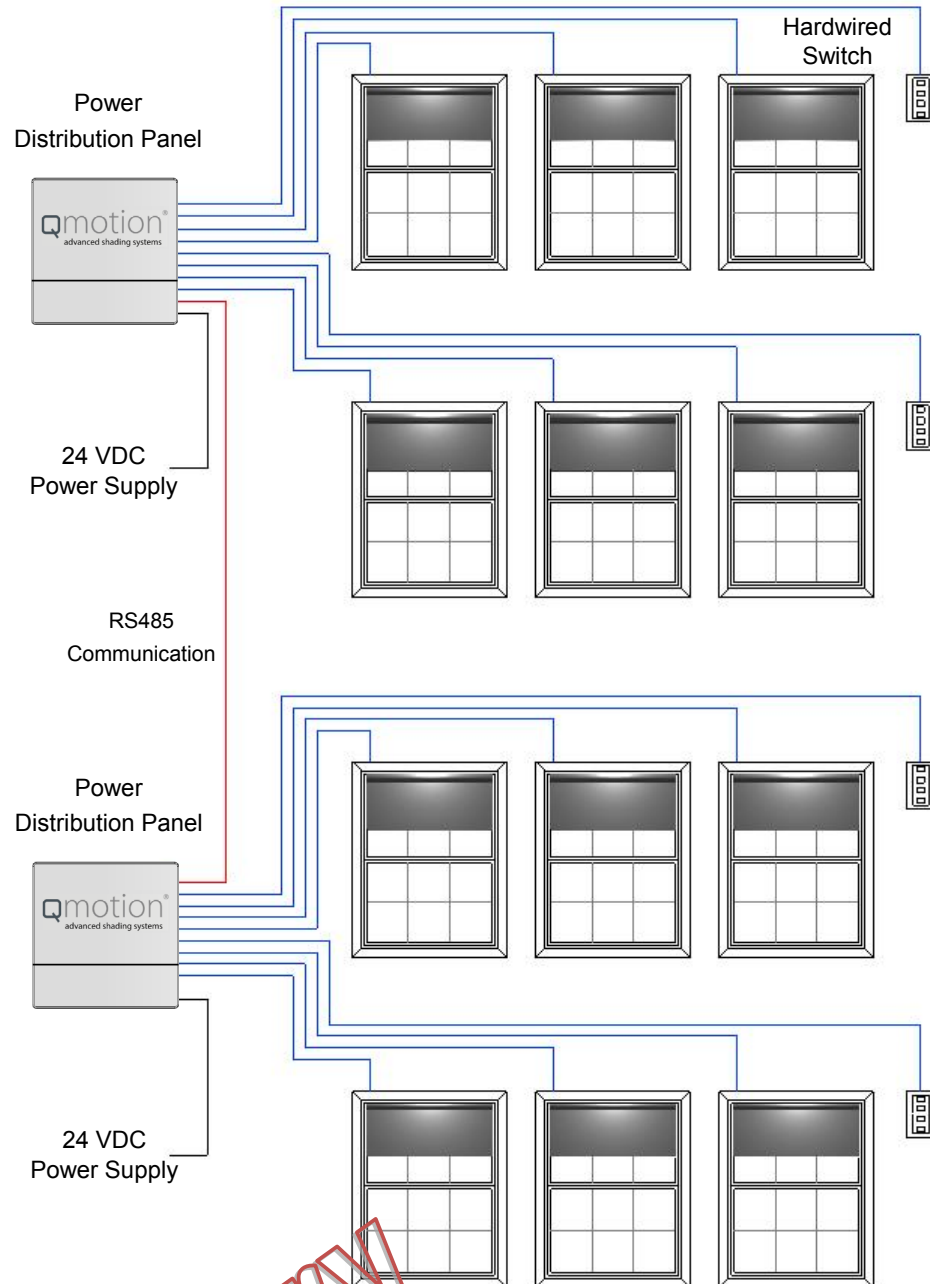
Power Distribution Panel:

- 8 RJ-45 ports for motorized shades and switches
- 2 additional RJ-45 communication ports dedicated to daisy chain with other Power Distribution Panels and Third Party Integration via RS485.
- Power Supply
 - AC Input: 100-240 VAC, 2.5A
 - DC Output: 24 VDC, 7.5A

Note:

- Standard Roll Applications (Motor Left) - Wire will need to be run to the LEFT side of the window (as shown).
- Reverse Roll Applications (Motor Right) - Wire will need to be run to the RIGHT side of the window .

*Specifications are subject to change without notice



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ZigBee Hardwired Roller Shade Wireless Remote / Optional Hardwired Switch Application

Wire Specification:

- Category 5e/Category 6 for use with RJ-45 Connector
- 24 AWG
- Maximum length of wire from Power Distribution Panel to device:
 - 8' X 8' Shade with 40:1 motor - 1250'
 - 12' X 12' Shade with 73:1 motor - 750'
 - 12' X 20' Shade with 73:1 motor - 500'
 - Hardwired 4 and 8 Button Switches - 1000'
- *Length based on 115K baud rate
- Maximum wire length for RS485 communication - 2000'

System Capacity:

- 200 Devices (QMotion Shades, QMotion Wireless Remotes, QMotion Hardwired Switches and other ZigBee devices)

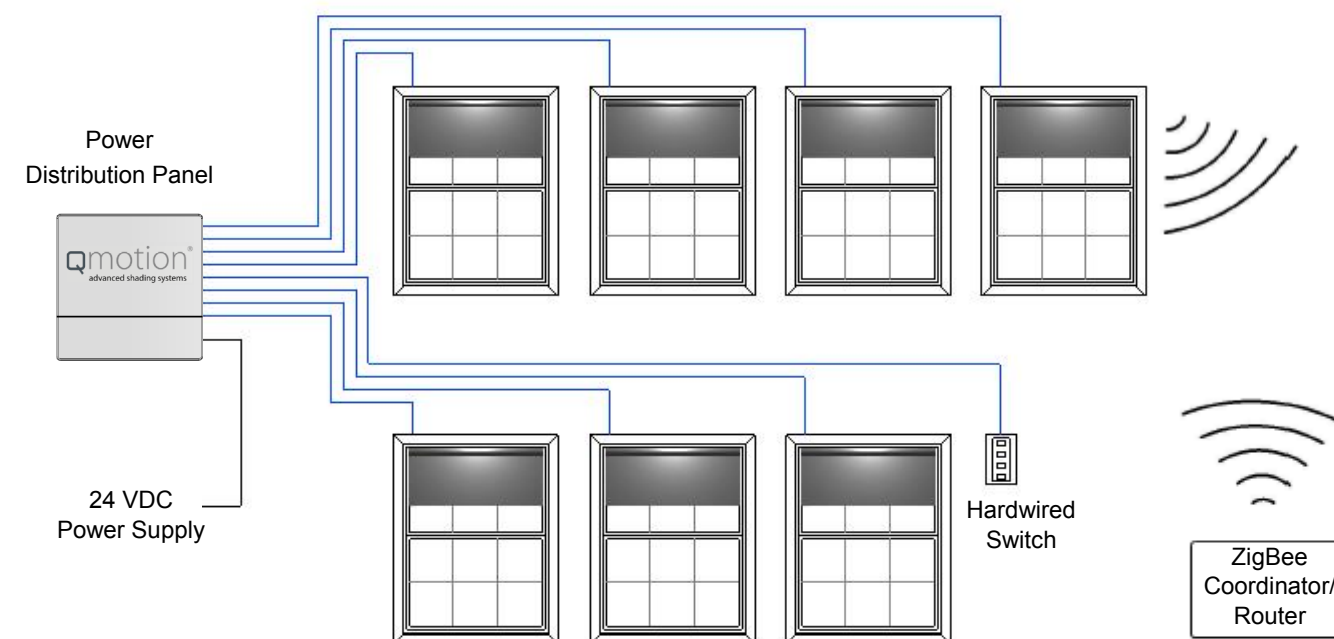
Power Distribution Panel:

- 8 RJ-45 ports for motorized shades and switches
- 2 additional RJ-45 communication ports dedicated to daisy chain with other Power Distribution Panels and Third Party Integration via RS485.
- Power Supply
 - AC Input: 100-240 VAC, 2.5A
 - DC Output: 24 VDC, 7.5A

Note:

- Standard Roll Applications (Motor Left) - Wire will need to be run to the LEFT side of the window (as shown).
- Reverse Roll Applications (Motor Right) - Wire will need to be run to the RIGHT side of the window .

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Hardwired Wall Switch Programming Instructions



READ AND UNDERSTAND EACH SECTION BEFORE PERFORMING REQUIRED STEPS

When using a Dual Channel Wall Switch, the left button column corresponds to Channel 1. The right button column corresponds to Channel 2 as shown below.

FIRST TIME SETUP

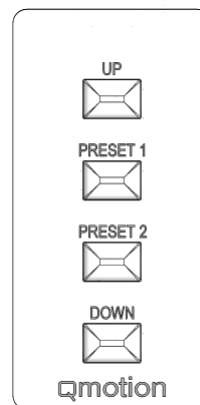
1. Install shade following appropriate installation instructions
2. **CONNECT POWER SUPPLY** to power distribution panel and verify power
3. **CONNECT SHADE** to power distribution panel using network cable
4. **CONNECT WALL SWITCH** to power distribution panel using network cable

PAIRING / LEARNING WALL SWITCH (or Channel)

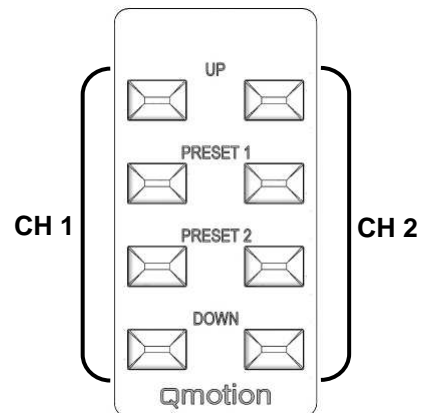
1. **PRESS** both **UP** and **PRESET 1** at the same time
(Shade will **JOG** in response)
2. **TUG** shade **6-10 inches**
(Shade will **JOG** in response and is now paired)

UNPAIRING / UNLEARNING WALL SWITCH (or Channel)

1. **PRESS** both **DOWN** and **PRESET 2** at the same time
(Shade will **JOG** in response)
2. **TUG** shade **6-10 inches**
(Shade will **JOG** in response and is now unpaired)



**Single Channel
Wall Switch**



**Dual Channel
Wall Switch**



While learning new positions, the button currently being programmed (after Step 3. TUG) will not send commands to the shade.

Example 1: When learning a new PRESET 1 position, pressing PRESET 1 will do nothing. The shade can still be adjusted using UP and DOWN.

Example 2: When learning a new upper limit position, the UP button is semi-disable. Only by pressing the UP button 3 times will the shade move to the up position. After Step 5 all buttons resume full functionality.

SETTING UPPER AND LOWER LIMITS / LEARNING A NEW POSITION

(Must use paired Wall Switch)

1. **PRESS** the (**UP**, **DOWN**, or **PRESET**) button that will be programmed (Shade will move to selected position)
2. **PRESS** and **HOLD** the same (**UP**, **DOWN**, or **PRESET**) button until shade **JOGS**
3. **TUG** shade **6-10 inches** (Shade will **JOG** in response)
4. **ADJUST** shade to desired position (Use **UP/DOWN** buttons or manually adjust shade by hand)
5. **PRESS** and **HOLD** the same (**UP**, **DOWN**, or **PRESET**) button (Shade will **JOG** when learned)